



Solid State Devices, Inc.

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SDAD101 Series

2,500 to 15,000 VOLTS STANDARD RECOVERY STACKABLE HIGH VOLTAGE RECTIFIER

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SDAD10 1

- Screening ^{2/}**
 - = Not Screened
 - TX = TX Level
 - TXV = TXV Level
 - S = S Level
- Reverse Recovery Time**
 - = Standard Recovery Time
- Voltage** 2.5 = 2.5kV, 5 = 5kV, 7.5 = 7.5kV, 10 = 10kV, and 15 = 15kV
- Power Rating** (See Below)
- Package Size** = 1 Inch Diameter

- FEATURES:**
- Stackable to 600 kV+
 - PIV 2.5 kV to 15 kV
 - Standard Reverse Recovery Time
 - Only Hermetically Sealed Rectifiers Used
 - Controlled Avalanche Rated
 - Modular Design for Easy Stacking
 - Storage and Operating Temps -65°C to +150°C
 - Available in Fast, Ultra Fast and Hyper Fast Versions
 - TX, TXV, and S-Level Screening Available ^{2/}
 - Replacement Upgrade - Microsemi / Unitrode Types USB2.5 Through USS15

ELECTRICAL CHARACTERISTICS ^{3/}

Part Number	Peak Inverse Voltage	Reverse Recovery Time ^{5/}	Average DC Output Current ^{4/} Tc = Case Temperature		Surge Non-repetitive	Maximum Forward Voltage Drop		Maximum Leakage Current @PIV	Replacement Part Number
	PIV (KV)	Max (ns)	If(avg)		Ifsm	Vf (V)	If (A)	Ir (uA)	
	25 °C	25 °C	75 °C	50 °C	100 °C	25 °C		25 °C	
SDAD101 B 2.5	2.5	5000	1.10	2.30	80	5.0	1.1	10	USB-2.5
SDAD101 B 5.0	5.0	5000	0.68	1.50	80	9.0	0.7	10	USB-5
SDAD101 S 5.0	5.0	5000	0.60	1.10	25	9.0	0.6	5	USS-5
SDAD101 B 7.5	7.5	5000	0.53	1.20	80	13.0	0.5	10	USB-7.5
SDAD101 S 7.5	7.5	5000	0.45	0.91	25	13.0	0.5	5	USS-7.5
SDAD101 B 10	10	5000	0.43	1.00	80	17.0	0.4	10	USB-10
SDAD101 S 10	10	5000	0.35	0.71	25	17.0	0.3	5	USS-10
SDAD101 S 15	15	5000	0.25	0.51	25	25	0.2	5	USS-15
High Current Versions									
SDAD101 H 2.5	2.5	5000	2.20	4.60	150	3.3	2.2	10	---
SDAD101 H 5.0	5.0	5000	1.36	3.00	150	5.5	1.3	10	---
SDAD101 H 7.5	7.5	5000	1.06	2.40	150	8.2	1.0	10	---
SDAD101 H 10	10	5000	0.86	2.00	150	10.7	0.8	10	---
SDAD101 H 15	15	5000	0.50	1.00	30	15.7	0.5	10	---

SDAD101 Package:

NOTES:

- 1/ For Ordering Information, Price, Curves, and Availability- Contact Factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ Unless Otherwise Specified, All Electrical Characteristics @25°C.
- 4/ Tc = 50 °C typical operation in oil.
Tc = 75 °C is typical ambient Ta = 25 °C unheatsunk.
- 5/ Recovery Conditions: If = 0.5 Amp, Ir = 1.0 Amp rec. to .25 Amp.

